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### 2007 Montana Statewide Test Results

#### Background

In 2007, all Montana students in grades 4, 8, and 11 participated in the seventh consecutive statewide norm-referenced standardized tests, the ITBS and the ITED, Form A. Montana students were tested in Reading, Language Arts, Mathematics, Social Studies, and Science.

Montana standards include basic knowledge, application of basic and specific knowledge, and process skills. The ITBS and ITED are designed to measure basic knowledge and some application skills. The all Montana student group does well on the tests, scoring above the national norm group in all grades and subjects.

The results of the tests give a picture of aspects of student achievement, and it is recognized that they do not measure all Montana standards or district curricula. However, it is important that the data are used constructively for what they are intended, as measures of achievement and comparisons with a national norm group.

*"It is the mission of the Office of Public Instruction to improve teaching and learning through communication, collaboration, advocacy, and accountability to those we serve."*

## Guide to the Reports

**The 2007 Montana Statewide Test Results Report to the Board of Public Education includes this introduction and five subject reports: reading, language arts, mathematics, social studies, and science.**

### **Each report includes**

1. Introduction to the subject with general tables and charts
2. Charts for each grade level within the subject are disaggregated within district size categories:
  - Horizontal charts with explanatory text following each
  - Charts and tables are numbered to reflect the grade, the number of the chart, and the subject. Examples:
    - R: 4, 8, 11** = Reading for all three grades
    - R 4.1** = Reading, grade 4, chart 1
    - LA 8.3** = Language Arts, grade 8, chart 3
    - M 11.5** = Mathematics, grade 11, chart 5
    - SS** = Social Studies;
    - SC** = Science
  - Arranged from the bottom of the chart up beginning with the state and going up the left side of the chart in the order of district-size category, large to small.
  - The district size categories and the number of students tested in that district size category are labeled.
  - The percents along the bottom of the charts are the National Percentile Ranks (NPRs).

### **Types of information used in the reports**

1. Disaggregations--by whole state and by district size category

Results are reported for each of the following groups:

- All students with number tested
- School size category with number tested
- Students without disabilities
- Students with disabilities
- Female students
- Male students
- American Indian students \*
- White students \*
- Students with free/reduced lunch with number tested
- Students with limited English proficiency (LEP)

**\*NOTE:** This report is limited to a comparison of Montana's American Indian and White students. Full race/ethnicity disaggregations are available online.

2. District Size Categories—only applicable size categories will be included in specific charts.

Montana school districts are divided into categories according to the number of students. The total number of students tested in a small size district category may be greater than the total number of students tested in a larger size category because Montana has many small sized districts. The following are the size categories:

- 1E = Elementary, more than 2500 students
- 1H = High School, more than 1250 students
- 1K = K-12, more than 399 students
- 2E = Elementary, 851-2500 students
- 2H = High School, 401 to 1250 students
- 2K = K-12, 399 or fewer students
- 3E = Elementary, 401-850 students
- 3H = High School, 201-400 students
- 4E = Elementary, 151-400 students
- 4H = High School, 76-200 students
- 5E = Elementary, 41-150 students
- 5H = High School, 75 or fewer students
- 6E = Elementary, 40 or fewer students

3. Scores Reported

**National Percentile Rank (NPR)** compares Montana students with students in the national norm group. The average NPR for Montana 4<sup>th</sup> grade math students is 71, meaning that Montana 4<sup>th</sup> grade students scored the same as or better than 70% of the students in the national norm group. All NPRs in this report are averages (An NPR average is calculated statistically and not by the simple mathematical process).

[Charts in each grade and subject section show the NPR.]

**National Stanines (NS)**, derived from the National Percentile Ranks, are organized into the following Montana performance categories:

Novice	Stanines 1 – 3
Nearing Proficiency	Stanine 4
Proficient	Stanines 5-7
Advanced	Stanines 8-9

[The Montana performance category data is shown statewide by grade, subject area, and disaggregation in each subject area introduction.]

**Customized Skills Reports**, reports aligned to Montana standards, provide aggregated data and are specific to Montana standards. Customized Skills Reports are compiled by Riverside Publishing Company for the state and districts.

Information from these reports includes:

1. The number of items which measure a specific Montana standard and
2. The average percent correct of the student group being reported

**Other Related Measures, when appropriate, may include:**

**NAEP, National Assessment of Educational Progress**

- NAEP tests a representative sample of students from each state in some subject areas and grades. The scores included in this report are from a representative sample of Montana students.
- NAEP scoring is on a 0-500 scale with four achievement levels:
  - Basic
  - Above Basic (does not indicate deficiency)
  - Proficient
  - Advanced
- Cut scores for the levels depend upon the grade and the subject. Instead of using cut scores, the NAEP data that are reported will include average scores for all students nationally, all White students nationally, all American Indian students nationally, all Montana students, all White Montana students, and all American Indian Montana students.
- In addition, the combined percentage of students scoring basic, proficient, or advanced is reported for the Montana White and American Indian groups.

**ACT Results—Graduating Class of 2007**

- The ACT Assessment is a college qualifying exam scored on a scale of 1-36, with 36 being the highest possible score for each subject tested.
- Subjects tested:
  - English
  - Math
  - Reading
  - Science Reasoning
- Score results, according to ACT, mean:
  - 17 or higher: typical requirement for colleges and universities with liberal or open admissions policies.
  - 22 or higher: typical requirement for colleges or universities with selective admissions policies.
  - 27 or higher: typical requirement for admission to most highly selective colleges and universities.
- The average score for each of the subjects for the national group and Montana students taking the tests (all, white, and American Indian) is included in this report in the specific subject section.

2007 Montana ITBS/ITED Results

Introduction

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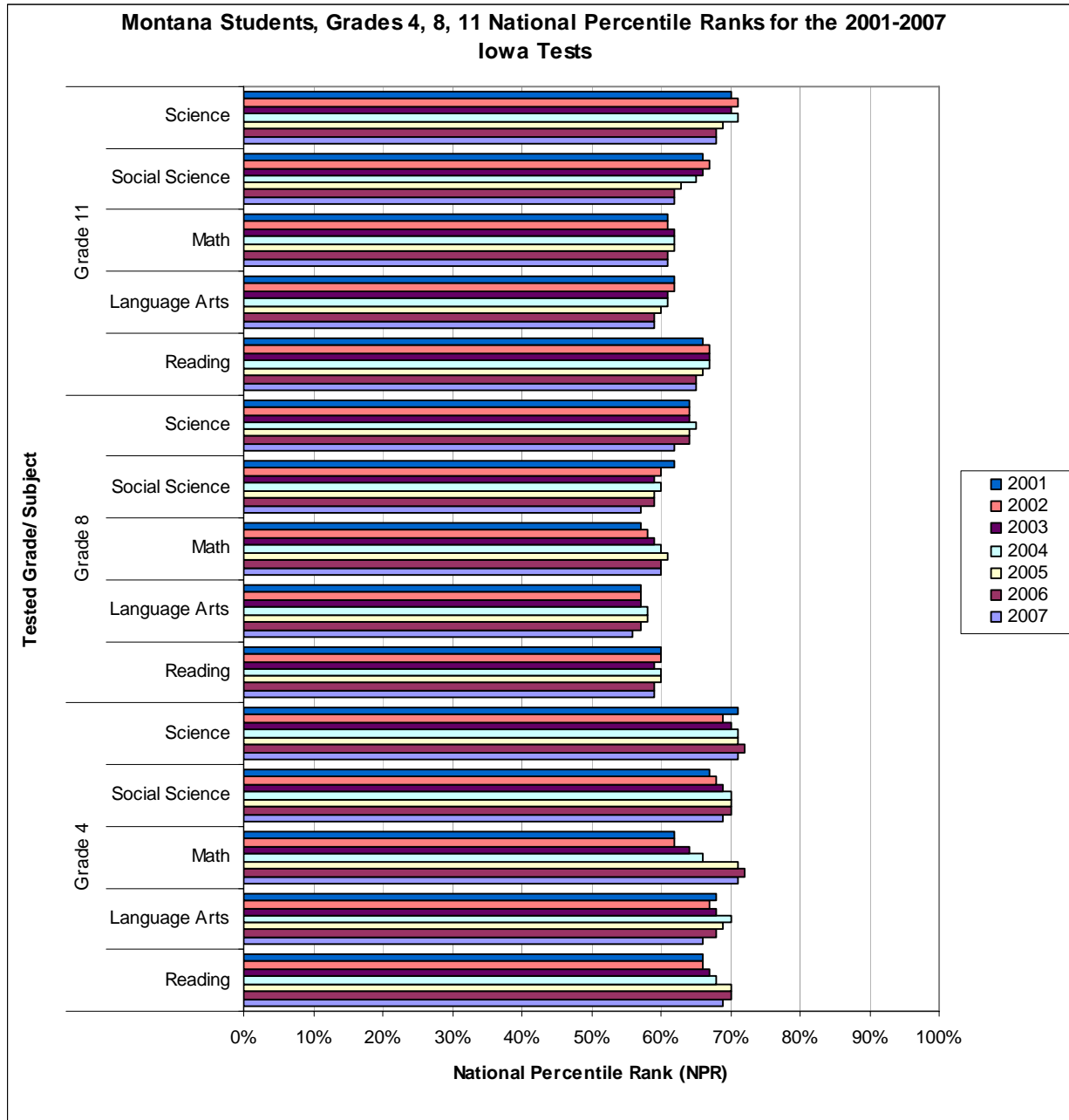
**SAT Results-Graduating Class of 2007**

- The SAT Assessment is a college qualifying exam scored on an 800 point scale for each of three subject areas: Critical Reading, Math, and Writing.
- The average score for the subject areas for the national group and Montana students taking the tests (all, White, and American Indian) is included in this report in the specific subject section.

## Summary

### Overall Results by Grade and Subject

The following chart displays the National Percentile Ranks for Montana students in grades 4, 8, and 11 who took the Iowa Tests in 2001, 2002, 2003, 2004, 2005, 2006 and 2007. It serves as an anchor for the charts that follow in the subject sections, which provide details according to disaggregations and size categories.



The following table displays the **National Percentile Ranks for Montana** students in grades 4, 8, and 11 who took the Iowa Tests in 2001, 2002, 2003, 2004, 2005, 2006 and 2007 and the change in scores between 2006 and 2007 in each grade, and subject.

Subject	Grade 4								Grade 8								Grade 11							
	01	02	03	04	05	06	07	% Chg	01	02	03	04	05	06	07	% Chg	01	02	03	04	05	06	07	% Chg
Reading	66%	66%	67%	68%	70%	70%	69%	-1%	60%	60%	59%	60%	60%	59%	59%	0%	66%	67%	67%	67%	66%	65%	65%	0%
Lang Arts	68%	67%	68%	70%	69%	68%	66%	-2%	57%	57%	57%	58%	58%	57%	56%	-1%	62%	62%	61%	61%	60%	59%	59%	0%
Math	62%	62%	64%	66%	71%	72%	71%	-1%	57%	58%	59%	60%	61%	60%	60%	0%	61%	61%	62%	62%	62%	61%	61%	0%
Social Studies	67%	68%	69%	70%	70%	70%	69%	-1%	62%	60%	59%	60%	59%	59%	57%	-2%	66%	67%	66%	65%	63%	62%	62%	0%
Science	71%	69%	70%	71%	71%	72%	71%	-1%	64%	64%	64%	65%	64%	64%	62%	-2%	70%	71%	70%	71%	69%	68%	68%	0%

- Montana students in grade 4 scored 66% or over in all subjects. The highest score, 71% was in Science and in Math; the lowest score, 66%, was in Language Arts.
- Montana students in grade 8 scored 56% or over in all subjects. The highest score, 62%, was in Science; the lowest score, 56% was in Language Arts.
- Montana students in grade 11 scored 59% or above in all subjects. The highest score, 68%, was in Science; the lowest score, 59%, was in Language Arts.

## Alternate Assessment

Alternate assessment is a method of measuring the performance of students unable to meaningfully participate in the statewide norm-referenced test (Thurlow, Elliott & Ysseldyke, 1998). It is one of four test participation options available to ensure that all students in Montana are involved in statewide testing.

The Alternate Assessment Scale is a skill checklist derived from performance standards in Montana's Standards Framework, which includes reading, language arts, mathematics, social studies, and science.

The following table contains the number of students who participated in the alternate assessment scales by grade and subject with the percent of each group scoring in the Montana performance categories in 2006 and 2007.

Grade	Subject	Number tested		Novice				Nearing Proficiency				Proficient				Advanced			
		2006	2007	2006	count	2007	count	2006	count	2007	count	2006	count	2007	count	2006	count	2007	count
4	Reading	80	77	75%	60	73%	56	19%	15	21%	16	4%	3	6%	5	3%	2	0%	0
4	Language Arts	66	71	83%	55	79%	56	12%	8	18%	13	5%	3	1%	1	0%	0	1%	1
4	Math	67	70	78%	52	80%	56	13%	9	20%	14	6%	4	0%	0	3%	2	0%	0
4	Social Studies	66	67	89%	59	91%	61	11%	7	9%	6	0%	0	0%	0	0%	0	0%	0
4	Science	66	65	82%	54	92%	60	15%	10	5%	3	3%	2	3%	2	0%	0	0%	0
8	Reading	116	77	70%	81	71%	55	26%	30	22%	17	4%	5	6%	5	0%	0	0%	0
8	Language Arts	79	63	78%	62	73%	46	22%	17	22%	14	0%	0	5%	3	0%	0	0%	0
8	Math	110	68	64%	70	60%	41	32%	35	37%	25	5%	5	3%	2	0%	0	0%	0
8	Social Studies	77	58	90%	69	86%	50	10%	8	9%	5	0%	0	5%	3	0%	0	0%	0
8	Science	76	57	84%	64	75%	43	16%	12	19%	11	0%	0	5%	3	0%	0	0%	0
11	Reading	73	66	85%	62	73%	48	12%	9	21%	14	3%	2	6%	4	0%	0	0%	0
11	Language Arts	71	62	65%	46	60%	37	30%	21	34%	21	6%	4	6%	4	0%	0	0%	0
11	Math	70	66	77%	54	56%	37	17%	12	39%	26	6%	4	5%	3	0%	0	0%	0
11	Social Studies	70	62	84%	59	77%	48	13%	9	13%	8	3%	2	10%	6	0%	0	0%	0
11	Science	70	59	80%	56	64%	38	17%	12	27%	16	3%	2	8%	5	0%	0	0%	0



### Percent Tested

The following table contains the number and percent of students by grade that were enrolled and tested in 2007.

<b>Grade</b>	<b>Spring Enrollment</b>	<b>Number Tested</b>	<b>Percent Tested</b>
4	10,358	9,962	96%
8	11,371	10,926	96%
11	11,278	10,970	97%

### High and Low Scores by Grade, Subject, and Disaggregation

The table on the following page displays the National Percentile Ranks (NPR) for Montana students in grades 4, 8, and 11 who took the Iowa Tests in 2001, 2002, 2003, 2004, 2005, 2006 and 2007.



Subjects and year in which students in a grade and disaggregation scored high



Subjects and year in which students in a grade and disaggregation scored low

NOTE: \*2001 LEP data were incomplete

**Table: High and Low scores by Grade, Subject and Disaggregation**

	Read	LA	Math	Soc. St.	Sci.	Read	LA	Math	Soc. St.	Sci.	Read	LA	Math	Soc. St.	Sci.
Grade	4	4	4	4	4	8	8	8	8	8	11	11	11	11	11
All Students 01	66%	68%	62%	67%	71%	60%	57%	57%	62%	64%	66%	62%	61%	66%	70%
All Students 02	66%	67%	62%	68%	69%	60%	57%	58%	60%	64%	67%	62%	61%	67%	71%
All Students 03	67%	68%	64%	69%	70%	59%	57%	59%	59%	64%	67%	61%	62%	66%	70%
All Students 04	68%	70%	66%	70%	71%	60%	58%	60%	60%	65%	67%	61%	62%	65%	71%
All Students 05	70%	69%	71%	70%	71%	60%	58%	61%	59%	64%	66%	60%	62%	63%	69%
All Students 06	70%	68%	72%	70%	72%	59%	57%	60%	59%	64%	65%	59%	61%	62%	68%
All Students 07	69%	66%	71%	69%	71%	59%	56%	60%	57%	62%	65%	59%	61%	62%	68%
Without Disabilities 01	69%	71%	66%	70%	72%	64%	60%	60%	65%	67%	69%	64%	64%	69%	72%
Without Disabilities 02	69%	70%	65%	71%	71%	64%	61%	62%	63%	68%	70%	65%	64%	69%	73%
Without Disabilities 03	70%	71%	67%	71%	72%	63%	61%	63%	62%	67%	70%	64%	65%	69%	73%
Without Disabilities 04	72%	72%	69%	72%	73%	64%	62%	64%	63%	68%	71%	65%	65%	68%	73%
Without Disabilities 05	73%	72%	74%	72%	73%	64%	62%	64%	63%	68%	70%	63%	65%	67%	72%
Without Disabilities 06	73%	72%	75%	72%	74%	64%	61%	64%	63%	68%	69%	62%	65%	66%	71%
Without Disabilities 07	72%	69%	74%	71%	73%	63%	61%	64%	61%	66%	69%	62%	65%	66%	71%
With Disabilities 01	32%	33%	31%	41%	50%	25%	26%	25%	26%	36%	26%	27%	26%	32%	32%
With Disabilities 02	32%	31%	31%	42%	46%	25%	22%	23%	32%	34%	28%	28%	26%	32%	34%
With Disabilities 03	34%	35%	35%	46%	51%	25%	22%	24%	32%	35%	29%	28%	28%	32%	34%
With Disabilities 04	38%	39%	40%	48%	55%	28%	25%	27%	35%	37%	29%	27%	26%	32%	34%
With Disabilities 05	39%	38%	46%	49%	55%	26%	23%	28%	33%	34%	27%	25%	25%	29%	31%
With Disabilities 06	40%	36%	43%	46%	53%	25%	23%	25%	32%	34%	27%	25%	27%	29%	31%
With Disabilities 07	39%	33%	42%	43%	52%	24%	22%	24%	30%	32%	26%	26%	27%	29%	31%
Female 01	67%	72%	60%	66%	70%	60%	62%	58%	62%	65%	68%	69%	60%	69%	72%
Female 02	67%	71%	61%	67%	68%	62%	64%	59%	60%	66%	69%	69%	61%	69%	73%
Female 03	68%	72%	63%	69%	70%	57%	64%	60%	59%	66%	70%	69%	62%	69%	73%
Female 04	69%	73%	65%	69%	70%	61%	64%	60%	59%	66%	69%	68%	61%	67%	72%
Female 05	70%	73%	70%	69%	70%	62%	64%	62%	60%	66%	69%	67%	62%	67%	71%
Female 06	71%	72%	71%	69%	71%	61%	63%	61%	60%	66%	69%	67%	61%	66%	71%
Female 07	70%	70%	71%	68%	71%	61%	63%	61%	58%	64%	67%	65%	60%	65%	70%
Male 01	66%	64%	62%	70%	72%	60%	52%	57%	63%	63%	64%	55%	62%	64%	67%
Male 02	65%	63%	63%	69%	70%	59%	50%	57%	59%	63%	65%	55%	62%	65%	68%
Male 03	66%	63%	64%	70%	70%	62%	49%	58%	58%	62%	65%	54%	63%	63%	68%
Male 04	68%	66%	67%	71%	72%	59%	52%	60%	60%	64%	66%	55%	63%	62%	69%
Male 05	69%	65%	72%	71%	72%	58%	51%	60%	59%	62%	64%	53%	62%	60%	67%
Male 06	70%	65%	73%	72%	73%	58%	50%	59%	59%	63%	63%	51%	61%	59%	64%
Male 07	68%	62%	72%	70%	72%	57%	49%	59%	57%	60%	64%	53%	63%	60%	67%

	Read	LA	Math	Soc. St.	Sci.	Read	LA	Math	Soc. St.	Sci.	Read	LA	Math	Soc. St.	Sci.
Grade	4	4	4	4	4	8	8	8	8	8	11	11	11	11	11
American Indian 01	44%	49%	40%	48%	50%	36%	41%	33%	35%	42%	41%	42%	41%	46%	51%
American Indian 02	44%	48%	40%	48%	49%	35%	35%	32%	39%	41%	41%	43%	39%	46%	48%
American Indian 03	44%	46%	41%	47%	48%	37%	38%	36%	41%	43%	40%	42%	40%	44%	46%
American Indian 04	48%	53%	46%	50%	52%	38%	39%	37%	41%	43%	40%	42%	39%	43%	47%
American Indian 05	49%	51%	52%	51%	51%	37%	39%	38%	40%	43%	38%	38%	39%	41%	43%
American Indian 06	50%	49%	53%	51%	53%	37%	38%	37%	39%	42%	38%	39%	41%	42%	45%
American Indian 07	48%	45%	51%	47%	50%	37%	39%	39%	39%	40%	40%	40%	41%	41%	44%
White 01	69%	70%	66%	71%	73%	64%	59%	60%	65%	67%	69%	63%	63%	68%	71%
White 02	69%	70%	65%	71%	72%	64%	60%	62%	63%	68%	70%	64%	63%	69%	72%
White 03	70%	70%	67%	72%	73%	63%	60%	63%	62%	67%	70%	64%	65%	68%	73%
White 04	71%	72%	69%	72%	74%	63%	60%	63%	63%	68%	70%	64%	64%	67%	73%
White 05	73%	71%	74%	73%	74%	63%	61%	64%	63%	67%	70%	62%	64%	66%	71%
White 06	73%	71%	74%	73%	75%	63%	60%	63%	63%	67%	69%	61%	64%	65%	70%
White 07	72%	69%	74%	72%	74%	62%	59%	63%	60%	65%	69%	61%	64%	66%	71%
Free/Reduced Lunch 01	54%	57%	51%	57%	59%	47%	48%	45%	47%	53%	51%	49%	49%	54%	58%
Free/Reduced Lunch 02	53%	55%	50%	57%	58%	47%	44%	45%	48%	53%	52%	49%	48%	54%	58%
Free/Reduced Lunch 03	54%	56%	53%	58%	60%	46%	44%	45%	47%	52%	53%	50%	61%	54%	59%
Free/Reduced Lunch 04	57%	59%	55%	60%	61%	48%	46%	48%	49%	55%	53%	49%	48%	52%	58%
Free/Reduced Lunch 05	59%	59%	62%	60%	62%	47%	46%	48%	48%	53%	51%	48%	49%	51%	56%
Free/Reduced Lunch 06	58%	56%	61%	59%	62%	46%	45%	47%	47%	53%	49%	46%	49%	49%	54%
Free/Reduced Lunch 07	57%	54%	60%	58%	60%	45%	44%	48%	45%	50%	50%	47%	49%	49%	54%
Limited English Prof 02*	27%	35%	29%	32%	35%	22%	27%	24%	30%	32%	32%	36%	34%	38%	40%
Limited English Prof 03*	27%	31%	29%	30%	33%	21%	25%	21%	29%	29%	30%	35%	36%	38%	41%
Limited English Prof 04*	32%	39%	37%	35%	41%	24%	29%	26%	32%	30%	28%	34%	32%	34%	37%
Limited English Prof 05*	31%	36%	37%	33%	35%	22%	27%	25%	27%	30%	27%	30%	34%	33%	35%
Limited English Prof 06*	34%	36%	40%	33%	39%	25%	32%	28%	29%	30%	23%	29%	32%	31%	33%
Limited English Prof 07*	33%	33%	38%	30%	36%	22%	27%	27%	27%	28%	25%	28%	30%	30%	32%

## **Conclusion**

Beginning in 2003, the third year of the statewide test, test results could be viewed in terms of longitudinal data. These 2007 results add to that view. However, each year, a different group of students is tested. The students tested in 2001, 2002, 2003, 2004, 2005, 2006 and 2007 are not the same students.

In addition, the number of the students tested affects the data: the larger the number, the more generalizable the data, and the smaller the number, the less generalizable the data because one or two students in a small group can dramatically impact the results. Therefore, comparing the different size districts continues to be problematic. However, looking at the data by size categories, one can see what may be stable across the state and what may not be.

As the charts and explanations are examined, it continues to be important to remember that these scores reflect one test, a test that best measures basic knowledge and some application of that basic knowledge, and one kind of test.